

## **STIC Biotechnology Systems Branch**

### **RAW SEQUENCE LISTING** **ERROR REPORT**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/585,886  
Source: STIC  
Date Processed by STIC: 7/20/06

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER VERSION 4.4.0 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

**<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>**

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05):  
U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

Revised 01/10/06

## Raw Sequence Listing Error Summary

### ERROR DETECTED

### SUGGESTED CORRECTION

SERIAL NUMBER:

10/585,886

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1      Wrapped Nucleics  
    Wrapped Aminos     The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor **after** creating it. Please adjust your right margin to .3; this will prevent "wrapping."
  
- 2      Invalid Line Length     The rules require that a line **not exceed** 72 characters in length. This includes white spaces.
  
- 3      Misaligned Amino  
    Numbering     The numbering under each 5<sup>th</sup> amino acid is misaligned. Do **not** use tab codes between numbers; use **space characters**, instead.
  
- 4      Non-ASCII     The submitted file was **not** saved in ASCII(DOS) text, as **required** by the Sequence Rules. **Please ensure your subsequent submission is saved in ASCII text.**
  
- 5      Variable Length     Sequence(s)      contain n's or Xaa's representing more than one residue. **Per Sequence Rules, each n or Xaa can only represent a single residue.** Please present the **maximum** number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
  
- 6      PatentIn 2.0  
    "bug"     A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s)     . Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. **This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.**
  
- 7      Skipped Sequences  
    (OLD RULES)     Sequence(s)      missing. If intentional, please insert the following lines for **each** skipped sequence:  
                               (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)  
                               (i)     SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)  
                               (xi)  SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)  
                               This sequence is intentionally skipped  
  
                               Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to **include** the skipped sequences.
  
- 8      Skipped Sequences  
    (NEW RULES)     Sequence(s)      missing. If **intentional**, please insert the following lines for **each** skipped sequence.  
                               <210> sequence id number  
                               <400> sequence id number  
                               000
  
- 9      Use of n's or Xaa's  
    (NEW RULES)     Use of n's and/or Xaa's have been detected in the Sequence Listing.  
                               Per 1.823 of Sequence Rules, use of <220>-<223> is **MANDATORY** if n's or Xaa's are present.  
                               In <220> to <223> section, please explain location of **n** or **Xaa**, and which residue **n** or **Xaa** represents.
  
- 10      Invalid <213>  
    Response     Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is **required** when <213> response is Unknown or is Artificial Sequence
  
- 11      Use of <220>     Sequence(s)      missing the <220> "Feature" and associated numeric identifiers and responses.  
                               Use of <220> to <223> is **MANDATORY** if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.  
                               (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
  
- 12      PatentIn 2.0  
    "bug"     Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
  
- 13      Misuse of n/Xaa     "n" can **only** represent a single nucleotide; "Xaa" can **only** represent a single amino acid



IFWP

## RAW SEQUENCE LISTING

DATE: 07/20/2006

PATENT APPLICATION: US/10/585,886

TIME: 08:34:04

Input Set : A:\10861-034US1.txt

Output Set: N:\CRF4\07202006\J585886.raw

4 <110> APPLICANT: Oberdoerffer, Philipp  
 5 Kanellopolou, Chrysi  
 7 <120> TITLE OF INVENTION: SYSTEMS AND METHODS FOR SHORT RNA EXPRESSION  
 9 <130> FILE REFERENCE: 10861-034US1  
 C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/585,886  
 C--> 11 <141> CURRENT FILING DATE: 2006-07-12  
 11 <150> PRIOR APPLICATION NUMBER: PCT/US2005/003104  
 12 <151> PRIOR FILING DATE: 2005-01-21  
 14 <150> PRIOR APPLICATION NUMBER: US 60/538,871  
 15 <151> PRIOR FILING DATE: 2004-01-22  
 17 <160> NUMBER OF SEQ ID NOS: 22  
 19 <170> SOFTWARE: FastSEQ for Windows Version 4.0  
 21 <210> SEQ ID NO: 1  
 22 <211> LENGTH: 623  
 23 <212> TYPE: DNA  
 24 <213> ORGANISM: Synthetic U6-STOP-shA1 construct  
 26 <400> SEQUENCE: 1  
 27 tccgacgccg ccattctctag gcccgccgccc gcccctctgc acagacttgt gggagaagct 60  
 28 cggctactcc cctgccccgg ttaatttgca tataatattt cctagtaact atagaggctt 120  
 29 aatgtgcatg aaaagacaga taatctgttc tttttaatac tagctacatt ttacatgata 180  
 30 ggcttggatt tctataagag atacaaatac taaattatta ttttaaaaaa cagcacaaaa 240  
 31 ggaaactcac cctaactgta aagtaattgt gtgttttgag actataactt cgtatagcat 300  
 32 acattatacg aagttattac gtttttgcca tttttgaatt cgttcctcag aggaactgac 360  
 33 aagcacccca atccctattt ggaggctcac tcacgttttt tctattttgt ttcttgacag 420  
 34 cagagctcgt tgctcactgt atagctcagg ttggcctgac actgatgagg ttctccagtg 480  
 35 actgcctcta cctacctact gggatgacag aggtgtacca ccaagccacg cccgggggat 540  
 36 ccataacttc gtatagcata cattatacga aggaaatgct ctttctctc aaagctttga 600  
 37 ggagaaagag catttccttt ttt 623  
 39 <210> SEQ ID NO: 2  
 40 <211> LENGTH: 282  
 41 <212> TYPE: DNA  
 42 <213> ORGANISM: Artificial Sequence  
 44 <220> FEATURE:  
 46 <223> OTHER INFORMATION: Functional units of the U6-STOP-shA1 construct  
 48 <400> SEQUENCE: 2  
 49 tccgacgccg ccattctctag gcccgccgccc gcccctctgc acagacttgt gggagaagct 60  
 50 cggctactcc cctgccccgg ttaatttgca tataatattt cctagtaact atagaggctt 120  
 51 aatgtgcatg aaaagacaga taatctgttc tttttaatac tagctacatt ttacatgata 180  
 52 ggcttggatt tctataagag atacaaatac taaattatta ttttaaaaaa cagcacaaaa 240  
 53 ggaaactcac cctaactgta aagtaattgt gtgttttgag ac 282  
 55 <210> SEQ ID NO: 3  
 56 <211> LENGTH: 5  
 57 <212> TYPE: DNA

Does Not Comply  
 Corrected Diskette Needed

Pg. 1  
 INVALID  
 Response

See item  
 #10 on  
 error  
 Summary  
 Sheet.

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Input Set : A:\10861-034US1.txt

Output Set: N:\CRF4\07202006\J585886.raw

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58 <213> ORGANISM: Artificial Sequence
60 <220> FEATURE:
61 <223> OTHER INFORMATION: U6 promoter of TATA box
63 <400> SEQUENCE: 3
64 tataa 5
66 <210> SEQ ID NO: 4
67 <211> LENGTH: 34
68 <212> TYPE: DNA
69 <213> ORGANISM: Unknown
71 <220> FEATURE:
72 <223> OTHER INFORMATION: Wild type of loxP sequence
74 <400> SEQUENCE: 4
75 ataacttcgt atagcataca ttatacgaag ttat 34
77 <210> SEQ ID NO: 5
78 <211> LENGTH: 225
79 <212> TYPE: DNA
80 <213> ORGANISM: Artificial Sequence
82 <220> FEATURE:
84 <223> OTHER INFORMATION: Stop casete sequence includes U6 pol III
85 termination
87 <400> SEQUENCE: 5
88 tacgtttttg cgatttttga attcggttcct cagaggaact gacaagcacc ctaacatcct 60
89 attggaggct cactcacgtt ttttctatgt tgtttcttga cagcagagct cggtgctcac 120
90 tgtatagctc aggttggcct gacactgatg aggttctcca gtgactgcct ctacctacct 180
91 actgggatga cagaggtgta ccaccaagcc acgcccgggg gatcc 225
93 <210> SEQ ID NO: 6
94 <211> LENGTH: 212
95 <212> TYPE: DNA
96 <213> ORGANISM: Artificial Sequence
98 <220> FEATURE:
100 <223> OTHER INFORMATION: genomic U6 PolIII termination sequence
102 <400> SEQUENCE: 6
103 tttttgaatt cgttcctcag aggaactgac aagcacccta acatcctatt ggaggctcac 60
104 tcacgttttt tctattttgt ttcttgacag cagagctcgt tgctcactgt atagctcagg 120
105 ttggcctgac actgatgagg ttctccagtg actgcctcta cctacctact gggatgacag 180
106 aggtgtacca ccaagccacg cccgggggat cc 212
108 <210> SEQ ID NO: 7
109 <211> LENGTH: 34
110 <212> TYPE: DNA
111 <213> ORGANISM: Artificial Sequence
113 <220> FEATURE:
114 <223> OTHER INFORMATION: the mutant second loxP site downstream of the STOP
115 cassette
117 <400> SEQUENCE: 7
118 ataacttcgt atagcataca ttatacgaag gaaa 34
120 <210> SEQ ID NO: 8
121 <211> LENGTH: 22
122 <212> TYPE: DNA
123 <213> ORGANISM: Artificial Sequence

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## RAW SEQUENCE LISTING

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Input Set : A:\10861-034US1.txt

Output Set: N:\CRF4\07202006\J585886.raw

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125 <220> FEATURE:
126 <223> OTHER INFORMATION: Primer
128 <400> SEQUENCE: 8
129 ggacctccat ctgctcttat tt 22
131 <210> SEQ ID NO: 9
132 <211> LENGTH: 22
133 <212> TYPE: DNA
134 <213> ORGANISM: Artificial Sequence
136 <220> FEATURE:
137 <223> OTHER INFORMATION: Primer
139 <400> SEQUENCE: 9
140 ggtctattac tgtgcaagtt gg 22
142 <210> SEQ ID NO: 10
143 <211> LENGTH: 27
144 <212> TYPE: DNA
145 <213> ORGANISM: Artificial Sequence
147 <220> FEATURE:
148 <223> OTHER INFORMATION: Primer
150 <400> SEQUENCE: 10
151 tgtgaattcg ttcctcagag gaactga 27
153 <210> SEQ ID NO: 11
154 <211> LENGTH: 36
155 <212> TYPE: DNA
156 <213> ORGANISM: Artificial Sequence
158 <220> FEATURE:
159 <223> OTHER INFORMATION: Primer
161 <400> SEQUENCE: 11
162 tgtggatccc ccgggcgtgg cttggtggta cacctc 36
164 <210> SEQ ID NO: 12
165 <211> LENGTH: 29
166 <212> TYPE: DNA
167 <213> ORGANISM: Artificial Sequence
169 <220> FEATURE:
170 <223> OTHER INFORMATION: Primer
172 <400> SEQUENCE: 12
173 gactctagat ccgacgccgc catctctag 29
175 <210> SEQ ID NO: 13
176 <211> LENGTH: 85
177 <212> TYPE: DNA
178 <213> ORGANISM: Artificial Sequence
180 <220> FEATURE:
181 <223> OTHER INFORMATION: Primer
183 <400> SEQUENCE: 13
184 tgcgaattca aaaatcgcaa aaacgtaata acttcgtata agtatgctat acgaagttat 60
185 agtctcaaaa cacacaatta cttac 85
187 <210> SEQ ID NO: 14
188 <211> LENGTH: 35
189 <212> TYPE: DNA
190 <213> ORGANISM: Artificial Sequence

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```

192 <220> FEATURE:
193 <223> OTHER INFORMATION: Primer
195 <400> SEQUENCE: 14
196 tgctcgagat gtctgagtac gagttcatgc atatc 35
198 <210> SEQ ID NO: 15
199 <211> LENGTH: 41
200 <212> TYPE: DNA
201 <213> ORGANISM: Artificial Sequence
203 <220> FEATURE:
204 <223> OTHER INFORMATION: Primer
206 <400> SEQUENCE: 15
207 ctggatcctt atttcagcag gaacagcatc tcccatatct g 41
209 <210> SEQ ID NO: 16
210 <211> LENGTH: 32
211 <212> TYPE: DNA
212 <213> ORGANISM: Artificial Sequence
214 <220> FEATURE:
215 <223> OTHER INFORMATION: Primer
217 <400> SEQUENCE: 16
218 ctggatcctt acttgaggag aaagagcatt tc 32
220 <210> SEQ ID NO: 17
221 <211> LENGTH: 21
222 <212> TYPE: DNA
223 <213> ORGANISM: Artificial Sequence
225 <220> FEATURE:
226 <223> OTHER INFORMATION: Primer
228 <400> SEQUENCE: 17
229 ttctaataaa cccagccttt g 21
231 <210> SEQ ID NO: 18
232 <211> LENGTH: 21
233 <212> TYPE: DNA
234 <213> ORGANISM: Artificial Sequence
236 <220> FEATURE:
237 <223> OTHER INFORMATION: Primer
239 <400> SEQUENCE: 18
240 gtgatggcag gagatttgta a 21
242 <210> SEQ ID NO: 19
243 <211> LENGTH: 24
244 <212> TYPE: DNA
245 <213> ORGANISM: Artificial Sequence
247 <220> FEATURE:
248 <223> OTHER INFORMATION: Primer
250 <400> SEQUENCE: 19
251 cattaactgg ggaaggattg tgac 24
253 <210> SEQ ID NO: 20
254 <211> LENGTH: 24
255 <212> TYPE: DNA
256 <213> ORGANISM: Artificial Sequence
258 <220> FEATURE:

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## RAW SEQUENCE LISTING

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TIME: 08:34:04

Input Set : A:\10861-034US1.txt

Output Set: N:\CRF4\07202006\J585886.raw

259 <223> OTHER INFORMATION: Primer  
261 <400> SEQUENCE: 20  
262 gcagaaaagt cagccagcca gatt 24  
264 <210> SEQ ID NO: 21  
265 <211> LENGTH: 20  
266 <212> TYPE: DNA  
267 <213> ORGANISM: Artificial Sequence  
269 <220> FEATURE:  
270 <223> OTHER INFORMATION: Primer  
272 <400> SEQUENCE: 21  
273 caagagggag agcaagccta 20  
275 <210> SEQ ID NO: 22  
276 <211> LENGTH: 20  
277 <212> TYPE: DNA  
278 <213> ORGANISM: Artificial Sequence  
280 <220> FEATURE:  
281 <223> OTHER INFORMATION: Primer  
283 <400> SEQUENCE: 22  
284 cgtctcaggc cttcagtgag 20

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/10/585,886

DATE: 07/20/2006

TIME: 08:34:05

Input Set : A:\10861-034US1.txt

Output Set: N:\CRF4\07202006\J585886.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application No

L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date